

**HK3  
027**

**(Block)**

**Geographic Centre:  
(Block Centre)  
131° 55' 48" W Long. / 53° 24' 39" N Lat.**



**Legend**

**Boundaries**

- Falling Corner
- Falling Boundary
- Adjacent Proposed Block
- Tenure Boundary
- TAUP/Development Area

**Harvest Method / Features**

- Stream Crossing
- Hoe / Backspar Trail
- Ground Based
- Grapple
- Helicopter
- Other
- Proposed R/W (CP/RP)
- Existing R/W

**Management Features**

- Tree Crown Modification
- Machine Free Zone
- Sensitive Soils

**Riparian Features**

- Type 1 Stream
- Type 2 Stream
- Upland Stream
- Non-Classified Drainage
- Unknown
- Fish Sensitive Feature
- Wet Ground/Swamp
- Reach Break

**Lakes / Wetlands**

- Forested Swamp
- Type 1 Habitat (Lake/Wetland)
- Type 2 Habitat (Lake/Wetland)
- Non-Fish (Lake/Wetland)
- Unverified Lake/Wetland/Swamp

**Road Features**

- Culvert (Existing / Proposed)
- Wood (Existing / Proposed)
- Replace or Repair (Culvert / Wood)
- Bridge (Existing / Proposed)
- Waterbar / X-ditch

**Road Construction**

- Quarry

**Contours (5m interval)**

- Index Contour and Label
- Intermediate Contour

**Reserves**

- Includes all WTRA & LUO Reserves. For a further break-down of areas please see the SP Map.

**Roads**

- Road Station (Hub)
- Engineered Road
- Existing Road
- Recce Road
- Adjacent Engineered Road
- FSR Road
- Old Grade
- Old Skid Trail
- De-activated Road

**LUO Features**

- Yew Tree (Single)
- Yew Tree (Group)
- Pacific Crab Apple (Single)
- Pacific Crab Apple (Group)
- Fairy-slipper
- Black hawthorn
- Northern riceroot
- Devil's club
- Highbush-cranberry
- Monumental Cedar (>120cm DBH)
- Monumental Cedar (<120cm DBH)
- CMT, Culturally Modified Tree
- Other Bear Den

**Other Features**

- Permanent Sample Plot
- Dangerous Tree
- Windthrow
- Rock
- Rock Bluff
- Slide
- Gully
- Heli Pad
- Heli Service Landing
- Gate
- Adjacent Retention
- Adjacent WTRA
- Greened Up Block
- Non-Greened Up Block
- Growth & Yield Plot Buffer

**LUO Schedules**

- Cedar Stewardship Area
- Forest Reserve
- Upland Stream Watershed Sub-Unit
- Sensitive Watershed Boundary
- Northern Goshawk Reserve
- Northern Saw-Whet Owl Reserve
- Marbled Murrelet Habitat (Class 1 & 2)

**Other Constraints**

- Park / Conservancy Area

	Harvest Area Summary (ha)					Totals
	Ground Based	Grapple	Proposed R/W (Cutting Permit)	Proposed R/W (Road Permit)	Prev. Harvested	
	20.9				1.5	22.4
Existing R/W						3.1
Sub Total	20.9				1.5	25.5
Proposed R/W (External to Falling Bdy)						
Total						25.5

NOTE: This table does not include any area(ha) calculation for WTRA, Retention, LUO Reserves or LUO Management Zones

Harvest Volume Summary		
Species	Percent (%)	Volume (m <sup>3</sup> )
H	43	6741
S	38	5990
C	17	2669
P	1	173
D	1	142
<b>Total</b>	<b>100</b>	<b>15715</b>
Harvest System		
Hectares	Volume (m <sup>3</sup> )	
Ground Based	20.9	15715
Grapple		
Other	1.5	
Proposed R/W		
<b>Sub Total</b>	<b>22.4</b>	<b>15715</b>
Proposed R/W (external to Falling Bdy)		
<b>Total</b>	<b>22.4</b>	<b>15715</b>

For streams without specific prescriptions on the back of this map, fall and yard away where possible (falling and yarding across is acceptable if necessary) bridge leaners where necessary. Lift clear during yarding and maintain stream channel integrity, no cleaning required.

If anything is unclear in this plan, contact Taan's Manager or Supervisor.

Stream 1, 2, 3 and 5 - fall and yard away where possible, retain regen, non-merch and deciduous - machine clean while maintaining machine free zone

Legal Line Pin located in the field - legal boundaries are blazed

N

**1:5,000**

0 50 100 150 200 250 Metres

NAD 83 BC Albers

**DRAFT**

**LAW001**  
 FLTC A97524 CP027  
 Mapsheet:103G.041  
 Map Updated: April 8, 2021  
 Map By/Updated By: O.VDM

**In addition to these site-specific instructions, all operations must be carried out in accordance with the Contract and Taan's CMS.**

**HARVESTING STRATEGIES AND CONSTRAINTS**

**If anything is unclear in this plan, contact Taan's Manager or Supervisor**

**-Prime Contractor signs, Block signs and Timber mark signs must be posted before the block entrance**

**Ground Based:**

- Soils are very susceptible to compaction particularly when saturated. The use of ground-based equipment will be limited to drier soil conditions and/or using puncheon. Puncheon will be dispersed following the completion of harvest activities to facilitate planting.
  - Maximum allowable soil disturbance = 5%
  - Maximum road side soil disturbance = 25% to allow for decking/loading logs.
  - Utilize sufficient puncheon during ground-based operations
  - Harvesting operators will cease immediately should compaction or rutting occur
  - Rehabilitate compacted soils and rutted areas once soils are sufficiently drained to allow for the return of machinery
  - Avoid ground based systems immediately after heavy rainfall events or when wet soil conditions exist
- Falling:**
- Hemlock more than 3m in height is to be cut down to reduce the spread of mistletoe where hemlock is a preferred species unless otherwise directed in these instructions.
  - Fall and buck according to current Taan bucking and utilization standards.

**Deactivation:**

Upon completion of harvesting, ensure the ditches, culverts and road ways are clear of debris and are managing water well. Re-establish sumps at culverts. LAW001-1, LAW001-2, LAW001-2a and LAW001-3 will be permanently deactivated. Remove all culverts, clean ditches and maintain drainage patterns (Cross ditches and water bars (herring bones) to keep water off road. Maintain quad access for planting and future surveys.

**Invasive Plants, Sedimentation and Erosion Control:**

- Wash equipment before moving from an area of known invasive plants before moving into a new area.
- Invasive plant parts removed from machinery should be burned. Where burning is not possible dispose of in landfill area.
- Any invasive plant found must be brought to the attention of Taan Forest.
- Seed contiguous areas of exposed soil that exceed 0.1 ha within 1 year of completing activity. Where readily available and comparable in cost, preference must be given to grass seed that is:
  1. high sod-forming content, except in areas that are planted with tree seedlings;
  2. certified by the Canadian Seed Growers Association that the seed; a) meets Common #1 Forage Grade or better standards for varietal purity established by the Association for seed of that kind of species (Seeds Act, Seeds Regulation S. 2(1); and b) is of native origin.

**ISSUES OR CONCERNS**

**ACTIONS TO ACCOMMODATE**

Refer to Taan Pre-work document prior to starting F-felling and Harvesting activities.

Pruning operations were completed prior to falling. Overhead hazard potential has increased along pruning boundaries (see map).

Areas of blowdown exist – fallers are to be made aware of this hazard.

**Dangerous Trees outside the harvest boundary** – Operations will be in accordance with Work Safe BC Regulations. Where possible "No Work Zones" will be established. If the Dangerous Tree must be felled, mark an "X" on the stump in the field and mark an "X" on the map for office use.

**Danger Trees felled within a Wildlife Tree Retention Areas or Reserve Areas are not to be utilized.**

**Lawn North junction with Highway 16 – Power lines are located on the north side of Highway 16 – ensure workers are made aware of this hazard. Use the appropriate signage to ensure public safety**

A WTRA & Timbered Leave Area are adjacent to this cut block to allow for wildlife habitat.

If any raptor nests, heron rookeries or other previously unidentified features are found operations within the immediate vicinity of the feature must be stopped until a plan to manage the feature is developed.

If a bear den tree is found, contact a Taan representative immediately. No action is to be taken on the newly discovered bear den until Taan has reviewed the den.

**Species at Risk:** There are no species at risk that have been identified in the vicinity of the cutblock.

VIA completed, determined the site is not visible.

STOP work immediately if any cultural features are discovered and report to Supervisor immediately. Features may include but are not limited to: CMT's or Shells exposed during excavation.

There are no monumentals to harvest within this block.

If a CMT is encountered within the opening, whether alive or dead, standing or fallen, during any phase, logging will cease in the immediate vicinity of the CMT. Notification will be sent to Taan (Manager/Supervisor), WFLNCO (Archaeology Branch) and the Haida Nation. Taan direction must be received prior to operations proceeding.

**Terrain Stability**

N/A

**Road Maintenance**

Maintain road access, kilometer signage, public safety signage along roads.

Stop road maintenance activities if siltation occurs.

Mitigate siltation entering streams by maintaining sumps along ditch lines and installing silt barriers (fences, hay bales etc.) along ditches and prior to creeks. Have ditch water flow into forest floor (filtered) before entering streams.

**Slash Management**

A planting density of 1200 sph across the cutblock must be obtained post-harvest. In areas of high slash accumulation pile slash, preferably on larger stumps, or create openings in the slash by moving slash around with the grapple or bucket of machine to create plantable spots.

Along roadside pile slash for disposal by burning. Create tall hay stack shaped piles with minimal dirt. Keep piles away from creeks / drainages and 100 feet from standing timber.

**Windthrow Treatments**

Pruning to be completed prior to falling or immediately after falling in the identified pruning areas (see map). Prune windthrow prone trees 20m beyond the falling boundary by removing 30% of the crown by spiral pruning and/or topping 10% of the crown where 30% of the crown cannot be removed by spiral pruning. All cut branches must be removed from the crowns to minimize overhead hazards for the next phases of block development.

Block traffic using flagmen along mainlines during pruning operations.

Note: Pruning has been completed for LAW001

**Sensitive Soils**

There are areas of sensitive soils. Refer to Harvest Instructions Map. Limit operations to drier soil conditions. Use puncheon for all back-spat trails and remove/deactivate trails by dispersing puncheon when complete.

**Leave Trees:**

N/A

**Yew Trees and Pacific Crab Apple**

Individual stems are to be retained where safe to do so. Fall and yard away from stems, retain small windfirm non merch around individual stems. In ground-based areas work around yew trees and Pacific Crab Apple stems. Do not stack logs on yew trees. In cable yarding areas minimize roads and make all efforts to lift logs over yew trees, or designate a corridor to minimize yew destruction.

If yew must be felled try to leave high stumps and as many live branches as possible

If yew is at roadside leave laid out for harvest by CHN, do not pile.

**RAINFALL SHUTDOWN CRITERIA**

<p><b>Dry Zone</b> <input checked="" type="checkbox"/></p> <p>Activities must shut down when (whichever occurs first):</p> <ul style="list-style-type: none"> <li>- Total rainfall reaches 55 mm in 24 hours; or</li> <li>- Water balance is <math>\geq</math> 55 mm; or</li> <li>- Rainfall since start of the shift is 40mm and continuing.</li> </ul> <p>Activities may start back-up when (whichever occurs first):</p> <ul style="list-style-type: none"> <li>- Total rainfall is equal to or less than 30 mm in 48 hours or the water balance is <math>&lt;</math> 55 mm.</li> </ul>	<p><b>Intermediate Zone</b> <input type="checkbox"/></p> <p>Activities must shut down when (whichever occurs first):</p> <ul style="list-style-type: none"> <li>- Total rainfall reaches 75 mm in 24 hours; or</li> <li>- Water balance is <math>\geq</math> 75 mm; or</li> <li>- Rainfall since start of the shift is 60mm and continuing.</li> </ul> <p>Activities may start back-up when (whichever occurs first):</p> <ul style="list-style-type: none"> <li>- Total rainfall is equal to or less than 30 mm in 48 hours or the water balance is <math>&lt;</math> 75 mm.</li> </ul>	<p><b>Wet/Very Wet Zone</b> <input type="checkbox"/></p> <p>Activities must shut down when (whichever occurs first):</p> <ul style="list-style-type: none"> <li>- Total rainfall reaches 100 mm in 24 hours; or</li> <li>- Water balance is <math>\geq</math> 100 mm; or</li> <li>- Rainfall since start of the shift is 75 mm and continuing.</li> </ul> <p>Activities may start back-up when (whichever occurs first):</p> <ul style="list-style-type: none"> <li>- Total rainfall is equal to or less than 50 mm in 48 hours or the water balance is <math>&lt;</math> 100 mm.</li> </ul>
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DO NOT EXCAVATE A PIT, QUARRY OR SPOIL MATERIAL WITHIN THE RIPARIAN MANAGEMENT AREA (30m) OF ANY STREAM.

**STREAMS**

Maintain streams in their natural channels. Do not disturb stable, in-stream large woody debris. Machine Free Zones (MFZ) on streams is a minimum of 7m. Do not pile logs within 7m of a stream channel.

<p><b>MANAGEMENT STRATEGIES FOR RIPARIAN MANAGEMENT ZONES (RMZ) INCLUDING PROTECTING STREAM</b></p>	
Creek I.D.	CLASS
1,2,3,5	upland
<p>Maintain 7m machine free zone, fall and yard away where possible (falling and yarding across is acceptable if necessary) bridge leathers where necessary. Lift clear during yarding and maintain stream channel integrity. Machine clean while maintaining machine free zone</p>	
NCD	NCD
<p>Fall and yard away where possible (falling and yarding across is acceptable if necessary) bridge leathers where necessary. Lift clear during yarding and maintain stream channel integrity, no stream cleaning</p>	
<p>1. Logs shall be decked perpendicular to the stream channel, stream flow will be maintained at all times, and any introduced materials will be removed immediately after loading.</p> <p>2. Do not block or crush culverts with logs yarded to roadside – protect culvert openings and outflows.</p> <p>3. No machinery is to be left parked within the RMA (30m) of any stream</p>	